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PROCEEDINGS OF THE ANTHROPOLOGICAL SOCIETY OF
WASHINGTON

Meeting of November 20, 1906¹

The 393d meeting was presided over by the newly-elected President, Mr J. D. McGuire.

Dr ALES HRDLICKA exhibited two remarkable crania from Florida, showing deformation due to artificial flattening of the forehead. One of the skulls is the largest of four thousand in the collection of the United States National Museum, its thickness reaching half an inch. The skulls are from Cedar Keys and the Everglades respectively. Dr Hrdlicka surmised that these may be skulls of Indian immigrants from the West Indies, where cranial deformation is of the same high type.

The paper of the evening was by DR W. J. SPILLMAN, on *Heredity, with Special Reference to Man*. The speaker first called attention to the fact that current theories of heredity relate more particularly to the development of the individual from the fertilized egg than to the transmission of hereditary characters from one generation to another. Brief résumés were given of the theories of Darwin, Weismann, and DeVries. The principal features of the theory that hereditary characters are properties of chromosomes, or groups of chromosomes, were outlined. The relation between this theory and Mendelian inheritance was pointed out. Since the behavior of the chromosomes of this character must determine the laws of inheritance, the chromosomes were followed through ontogenetic development, particular attention being given to the reduction division and its meaning. One remarkable deduction from the chromosome theory is that in each individual of the human race there are only sixteen lines of inheritance. This means that if the chromosomes retain their identity and their relation to hereditary characters from generation to generation, an individual cannot be related to more than sixteen ancestors of a given generation. Thus, in the fifth generation of ancestors there are thirty-two individuals. If the number of chromosomes in man is sixteen, as is supposed to be the case, an individual cannot be related to more than one-half of his fifth generation of ancestors.

¹ All the meetings noted in these Proceedings were held in the assembly hall of the Cosmos Club at Washington.

The behavior of Mendelian character pairs was illustrated. The forces governing variation in chromosome functions were pointed out. It was shown that in some organisms every chromosome in the nucleus is similar to every other in its relation to hereditary characters. This lends credence to the view that in all organisms there may be many characters which are related in some way to all, or at least a large number, of the chromosomes. The probability was pointed out that all chromosome functions continually attempt to vary. In trivial characters this variation is unrestricted, and furnishes the basis for specific distinctions. In vital characters natural selection while not preventing variation does prevent differentiation, that is, chromosome functions if they vary must vary together. Organic heart disease and other organic weaknesses were mentioned as possible results of unfortunate changes in chromosome functions relating to vital characters.

Reversion was explained as the sudden appearance of a long lost character, due to the accidental bringing together of its more or less modified factors by cross-breeding. It was pointed out that two groups which no longer interbreed invariably become more or less differentiated in all their characters. This accounts for distinct racial characters. Such characters would in time become specific, or even generic.

Translocation of tissue and reversion were suggested as possible explanations of abnormal dental elements, such as those found by Dr Hrdlicka and other investigators.

Meeting of December 4, 1906

The 394th meeting was held December 4, 1906, the President, Mr J. D. McGuire, in the chair, and 100 members and guests present.

HON. FRANCIS E. LEUPP, Commissioner of Indian Affairs, addressed the Society on *The Indian from the Administrative Point of View*. Mr Leupp briefly outlined the steps that the Government has taken in its administration of Indian affairs, dwelling first on its gathering of the Indians on large reservations at a time when the military forces were inadequate for policing the frontier. He pointed out the fundamental error of this, at that time, seemingly necessary step, and showed that no race, not even one with the stamina of the Anglo-Saxon, could have thrived under such a condition thrust upon it.

At the same time that the Indians were being concentrated on these reservations, the country over which they had roved was being laid bare of game. Of course, such game as then remained on the comparatively limited reservation areas was insufficient for support. The second great

Indian problem arose to confront the administration: How should the Indian be fed? And then grew out by acts of Congress, either in accordance with treaties or as gratuities, the ration system.

Having made these initial blunders, the Government proceeded to make another. It argued that as the Indians once occupied all the land, certain portions were due to them individually, and that each and every Indian if given an allotment would be made into a self-supporting farmer. This was a hope as absurd in its application, the Commissioner pointed out, as if each one of his audience should be set down upon 40 or 80 or 160 acres or so of land and expected to make a living from the soil. The Indian race, like any other, possesses varied capacities, and while some Indians could undoubtedly be made into successful farmers, the Commissioner expressed himself emphatically as not being one of those who believed that the Indian question could be settled in that way alone.

Mr Leupp then pointed out the efforts he was making to recognize the diverse capacities of the Indians. He was trying to so operate the great machinery of the Indian Service that each individual Indian would be able to work at what he as a man was best fitted for. The longest stride he had taken in that direction was the establishment of an Indian labor bureau in the Southwest. This was inaugurated at the very beginning of his administration, and has now proved itself a success. The agent in charge of this bureau has camps of Indians at work on the Santa Fé Railroad, on the sugar-beet farms of Colorado, and on irrigation and other works, all on an absolutely business basis. He simply sees that the Indians get their pay promptly and fully, and that their sick are cared for. The Commissioner took the audience into his confidence by telling them that he was proposing to extend this system in the North, and that in the North also he had just started what might be termed a complement of it — namely, that whereas in the Southwest he had succeeded in bringing Indian labor to the employment markets, he was now in the Northwest endeavoring to bring produce markets to the Indians who farm, and that on the first of the coming year a man would enter upon the duty of finding out ways and means of disposing profitably of the products of the Sioux reservations, and so be able to give the Indians some definite assurances that whatever they raised on their allotments could and would be salable at an advance on the cost of production.

Perhaps at no point in the Commissioner's talk was his attempt to bring all the forces of the administrative machine to bear directly on the Indians themselves more plain than in what he said about the day schools. The little day schools, very simple affairs with one teacher and one house-

keeper, he had been encouraging in every spot where the Indians are thickly enough settled to support a school of even fifteen children ; and it is these schools which are really beginning at this late day to do the work which the elaborate Indian school system should have done in the first place. He told of his surprise in a Hopi dwelling at finding the table set and the house kept in a way that would have done credit to the cleanliness and skill of many good white housekeepers ; and the mother of the family, replying to his inquiry, said she had learned all she knew from her little daughters who were going to the school at the foot of the mesa. There, each day, they had learned washing, or cooking, or how to make a bed or set a table, and every night had told their mother about it. In this way the day schools are teaching both the old generation and the new.

The Commissioner dwelt on his endeavor to foster Indian art and keep the ancient quality of it, while at the same time directing it into channels where it would be really of use in our own civilization. He illustrated this evolution by referring to the Indian-made desk in his office, on which he uses Indian baskets for papers to be distributed to the various divisions. The first basket he succeeded in getting after much effort is a very unstable affair, but he keeps it as an example of a stage in the process he is trying to bring about. The other two baskets are of very business-like shape and structure, and at the same time preserve absolutely the ancient Indian designs. In this connection also Mr Leupp has in his office other specimens of Indian handiwork, new and old — the furniture of the room being work of young Indians at the Government schools, the walls being decorated with old Indian ornamentation, and the floors with Navaho rugs. He hopes to extend to other points the work which Miss Angel Decora, a Winnebago Indian, is doing at Carlisle in developing the artistic gifts of Indian children along the lines of their own racial ideals as to design and color.

In conclusion the Commissioner showed the permanent value of the contribution to the complex civilization of this country which could come from treating the Indian as an individual member of society rather than as a mere element in a tribal unit.

Dr C. Hart Merriam, commenting on the Commissioner's remarks, said that the California Indians were making absolutely no progress whatever in their ability to put their money to proper use, and that he considered this inability one which was likely to lead to the total ruin of the Indians. The Commissioner announced that this was a condition and a danger not peculiar by any means to the California Indians : it was found throughout the country. At the same time, he pointed out, much

had been done and more was being done to influence the Indians in this matter. For a single example, forty-nine Navaho school boys and three adults brought home after six weeks' labor in the Colorado beet-fields last summer, \$1,672.56. This amount was net profit, and was put aside by the children for the purchase of sheep; and they had also made arrangements that, while engaged next summer in similar work, their old people should take care of their sheep for them. This is one instance of many which, though scattered, are still very hopeful signs coming in from all over the country, that at least the rising generation of Indians can husband their money and use it profitably.

Meeting of December 18, 1906

At the 395th-meeting President McGuire occupied the chair and 21 members were present.

MR JAMES MOONEY announced the death of Jeremiah Curtin and paid a tribute to this accomplished linguist, who for a number of years was a member of the Society.

DR I. M. CASANOWICZ read a paper on *Two Planetary Cabalistic Amulets in the United States National Museum*. These amulets belong to the magnificent Benguiat collection of Jewish ceremonial objects which constitutes an important part of the Division of Historic Religions in the National Museum. They are in form of bronze disks, three inches and a quarter in diameter, with suspension loops, and probably originated in the seventeenth century in the Netherlands. The first represents on the obverse the figure of Mars and his attributes, the sword, the club, and shield, and the astronomical symbols of the planet and of Aries and Scorpio, surrounded by a French and Hebrew legend to the effect that the amulet is to serve according to the intention of Corson, probably the name of the original owner. The principal device on the reverse is a magic square, i. e. a series of numbers arranged in quadratic form so that the sum of each vertical, horizontal, and diagonal column is the same as that of the others. Above and beneath the magic square are geometrical figures, more or less cruciform in outline. The remainder of the space is filled out with names of angels in Hebrew. The second is appropriated to Mercury, and has on the obverse the figure of Mercury and his attributes, the winged cap (*petasus*) and staff (*cadeucus*), and the astronomical symbols of the planet and of Gemini and Virgo. The magic square on the reverse consists of eight columns, each adding up to the sum of 260; while that on Mars has only five columns, each amounting to 65. The other features are the same on both amulets.

By way of explanation of the amulets, Dr Casanowicz gave a brief exposition of the Cabala, the mystic philosophy of the Jews concerning God and the Universe. One of its principal doctrines is that God manifested Himself through ten emanations, called *sephiroth*, spiritual potencies or agencies which served as intermediaries between the Infinite and Absolute and the world of sense. Corresponding to the ten sephiroth cabalistic cosmology or astrology conceives the visible universe to consist of ten concentric spheres. Each sphere has its own class of spirits operating in it. The spheres of the seven planets were supposed to be of the greatest importance to mankind, as each planet was believed to preside over a certain domain of human affairs. Amulets are the means to secure to the possessor the influence of the powers of the planetary spheres. Thus a cabalistic formula says a talisman of Mars in "red brass" will have the power of striking terror to one's enemies and compelling them to submit. The magic square is credited with great magical potency also by the Hindus and Arabs.

MR W. E. SAFFORD presented a paper on *The Necropolis of Ancon, Peru*. The necropolis is situated in a vast dry region traversed with narrow ribbons of green along the valleys of rivers descending from the Andes. The burials were made on waste grounds in square chambers excavated in the earth and roofed with beams thatched with lichen and reed mats. Therein were put the bodies tied up in large bales and having wands of bright-painted reed at the sides of the head. With the dead were placed baskets, bronze objects, vases of fine pottery, textiles, and food consisting of crabs, corn, beans, fruits, and nuts. Invariably from the neck of the dead was suspended a bag of cocoa leaves, and frequently in the graves of children were found bodies of pet dogs and parrots. Mr Safford exhibited many examples of pottery and superb textiles.

Meeting of January 9, 1907

The 396th meeting was held January 9, 1907, with 26 members present.

MISS ALICE C. FLETCHER addressed the Society on *A Visit to the Hill of the Star, Mexico*. This hill stands in the valley south of Istapalapa, on the shores of Lake Xochimilco, and is skirted by the Vega canal. Causeways built across the lowlands and lake extend to its foot and many trails cut its sides. On the summit was a temple which now is represented by a mass of debris 12 to 13 feet deep, and near the base of the hill are several caves. The Temple of the Star was built on the spot where the great flint knife fell from heaven and created man and gods. The myth

seems to relate to the sun and the origin of fire. The hill was the focus of a new-fire ceremony in which a procession of celebrants marched down the causeway from Mexico to Istapalapa and ascended the hill. When the Pleiades were at the zenith human sacrifice was made and new fire kindled.

DR JOHN R. SWANTON read a paper on *Indian Tribes of the Lower Mississippi*, presenting some of the results of an extended study of the living and extinct tribes of this region. It has been possible by means of names and early accounts of raids and customs to ascertain the distribution and affinities of these tribes. In no district of North America is there such low culture, the tribes living on alligators, fish, etc., and roaming about. One of the important discoveries made by Doctor Swanton is that the Natchez is not a separate stock, but is a dialect of Muskhogean. The Natchez had a strange system of castes and a remarkable fire cult. They believed that they were descended from a being behind the sun's disk, and that fire was given them by a culture hero who was son of the sun.

Miss Fletcher remarked on the extreme isolation of the Gulf tribes, and Mr Mooney said that the Gulf coast was a migration line by which tribes came from Mexico, and that an examination of the tribes of Tam-aulipaz will show the links with other tribes on the Gulf.

Meeting of January 22, 1907

At the 397th meeting 16 members were present.

MR JAMES MOONEY read a paper on *A Kiowa Buffalo Shield*. The Kiowa, said Mr Mooney, have traditions of migrations covering a considerable period, but do not know anything concerning their tribal origin. They are horse people and used shields, but no shields are made now. These shields were covered with symbolic decorations which were supposed to give protection as a fetish between man and a spirit being. The study of the symbolism of these shields has been taken up and at last the field work has been brought to completion. There were four hundred shields, but now only eight remain, five of these being in the National Museum. They were made from skin of the buffalo bull, taken under the throat and heated and thickened over a fire. The symbols that were painted on the shields were revealed in dreams following an invocation of the spirits, hence not every Indian knows the symbols of every other Indian.

DR WALTER HOUGH described *Ancient Pueblo Basketry and Sandals*, and exhibited a number of specimens collected by the Museum-Gates Expedition to Arizona and New Mexico in 1905. There had been gathered

from portions of the Pueblo region examples of ancient basketry, and it is now possible to make a beginning of the study of the material and its connection with the ancient pottery. Rich collections have recently been obtained from southeastern New Mexico, containing representatives of nearly every type of basket weaving, and the only modern tribe in which such variety exists is the Hopi. Sandals also are among the most common aboriginal objects in caves and débris of cliff-dwellings. They vary from a simple flat sole plaited of broad yucca leaves to an elaborately woven sole ornamented with textile patterns. From caves in the high region come boot-sandals and over-sandals, for protection against snow. The range of sandal-weaving tribes in the United States was discussed and the general substitution of the moccasin for the sandal was stated to have taken place centuries ago.

Meeting of February 5, 1907

At the 398th meeting President McGuire occupied the chair and 24 members were present.

MR F. P. SARGENT, Commissioner of Immigration, addressed the Society on *What is the United States getting in Immigrants Physically and Mentally?* Mr Sargent called attention to the composition of the nation, which has been made up of aliens, and fortunately most of the immigrants have been of the right sort. This is a new nation and there is plenty of room, but in view of the inferior character of the greater part of the accessions at present there is need of wise restrictions. Last year more than a million immigrants entered the country, and they will continue to come so long as we offer advantages such as we do today. Mr Sargent suggested that agencies be established at European ports before which immigrants may appear for examination, and that immigrants should be dispersed over the country and not allowed to congregate in the large cities. He thinks illiteracy should not disqualify, but that the age of the immigrant has much to do with his value as a citizen; thus young children are the best material.

In the discussion which followed Mr Sargent's interesting address, several speakers agreed that immigrants differ from the Americans, not in mental but in physical features; that the stimulation of the new country will improve them, and that a valuable cross will be formed.

Meeting of February 19, 1907

The 399th meeting was called to order by President McGuire, 25 members being present.

DR WALTER HOUGH presented a length of cord covered with quill braid, which when wrapped around a card of proper width shows a conventional human figure. The specimen was taken from a Chinook skirt in the National Museum, collected by Lewis and Clark.

DR O. F. COOK read a paper, *Principles of Evolution*, and illustrated his remarks with tables and diagrams and with typewritten synopses which were distributed among the members. An outline, prepared by Dr Cook, follows :

I. — *Types of Evolutionary Theories*

Static Theories view species as normally stationary, and ascribe evolutionary motion to environmental causes of adaptation. The static theory commonly called Darwinism treats adaptations as caused indirectly through natural selection, by the survival of the fittest of the individual variations. The static theory of Lamarckism treats adaptations as direct results or responses to environmental influences.

Saltatory Theories view the species as normally stationary except for rare intervals of sudden transformation or "mutation" caused either by the environment or by internal "forces" of unknown character. Selection can determine the survival of mutations adapted to environmental conditions, but exerts no direct adaptive influence.

Determinant Theories view species as moving gradually in definite directions in obedience to internal "principles of perfection" or "mechanisms of descent." Adaptation depends on the coincidence between evolution and environment ; selection exerts no direct influence.

Kinetic Theories view species as normally in motion, but not in a single or definite direction, and without reference to environmental causes. Adaptations are induced by the selective action of the environment, which restricts and deflects the normal evolutionary motion of the species. Selection is accepted as an explanation of adaptation, but not as a cause of evolutionary motion.

II. — *Evolution Distinguished from Adaptation and Speciation*

Specific Constitution of Living Matter. Organisms exist in large groups of freely interbreeding individuals, commonly called species.

Evolution is a process of change by which the members of an organic group become different from their predecessors, or from other groups of common origin.

Adaptation is the attainment of characters which place the species in more advantageous relations with its environment.

Speciation is the attainment of differential characters by segregated groups of organisms, that is, by subdivisions of older species.

Adaptation represents the bionomic aspect of evolution, speciation the taxonomic. When viewed too exclusively from these standpoints, adaptation and species formation have appeared to many writers as causes of evolution, but under the kinetic or physiological interpretation they appear only as results of evolution, quite incidental to the more general phenomenon of progressive change.

Bionomic Conditions of Evolution

Isolation of an organic group implies such a separation that interbreeding with the members of other groups is excluded. Isolated groups of organisms always become different, but there is no indication that isolation is an evolutionary factor in the sense of causing or contributing to organic development. Its influence is negative rather than positive, for small groups advance less rapidly than large, and often deteriorate through inbreeding and inadequate diversity of descent.

Selection is a form of isolation which separates from the species the individuals which are lacking in the expression of certain characters. Under unconscious or natural selection only the most deficient are rejected; under conscious or artificial selection only the most proficient are saved. Selection, by deflecting and confining the evolutionary motion of the species to particular channels, conduces to the adaptive specialization of characters, but it is not an actuating cause or principle of evolution.

Symbasis is the normal evolutionary condition of free interbreeding with adequate diversity of descent, as shown in natural species. Symbasis is to be distinguished on the one side from the narrow inbreeding which induces abnormal mutations, and on the other from the wide cross-breeding which produces abnormal hybrids.

Analysis of Intraspecific Differences

Differences of Growth Stages. Changes of form, structure, and function shown in the life history of normal members of the species, including metamorphosis and alternations of generations and structural phases.

Differences of Adjustment to Environment. Differences which arise from the ability of individual members of the species to adjust themselves to varied environmental conditions.

Differences Contributing to Descent. Differences which contribute to diversity of descent and free interbreeding, but are independent of growth stages and environmental adjustments. Descent differences include "fortuitous individual variations," sexual specialization and polymorphism.

Differences of New Variations. Characters which have not existed previously among the ancestors of the individual; genetic variations which contribute to heterism and to evolutionary progress.

Differences of Abnormal Development. Characters diverging from those of the normal members of the species, accompanied by a deficiency of vitality and fertility.

The general discussion was participated in by Messrs Holmes, Green, Hrdlicka, Stetson, and Hough.

Meeting of March 5, 1907

The 400th meeting was held on the above date, the President, Mr J. D. McGuire, in the chair, and 20 members and guests present.

DR A. HRDLICKA presented *A. Brief Report on the "Ancient Man" of Nebraska (Based on Personal Examination)*. The site on Long's Hill, near Florence, Nebraska, was visited by Dr Hrdlicka, who has also examined all the bones taken from the excavations. He found that although the bones were scattered through the soil, they are related, are similar in color, are normally developed, and are like Indian bones. The speaker stated that, as the bones have been gnawed by rodents, they may have been scattered in the loess by burrowing animals. There is, he thinks, no ground for belief in very ancient man at Long's Hill.

The paper was discussed by Dr W J McGee and Dr Daniel Folkmar.

The paper by PROFESSOR O. T. MASON, *First Account of the W. L. Abbott Basketry from Southern Malaysia, now in the United States National Museum*, was read by the Secretary. The paper gave the results of a study of a large collection of basketry from the peninsula of Malacca, the small archipelagoes east and west of Sumatra, and western Borneo south of Sarawak, collected and presented to the National Museum by Doctor William L. Abbott of Philadelphia. The collection is of great value and comes at an opportune time for comparison with the vast amount of material now being sent to the United States from the Philippines. It also relates itself to the work of Japan, China, and the south-eastern Asiatic states. The materials, forms, structural parts, and technical processes all have relation to the environment. In no other part of the world are such accommodating plants to be found for basketry. The forms grow out of the demands of a tropical climate and the industries occasioned thereby. The structural parts have especial relation to a people who, by reason of the climate, wear little clothing; so that many of the Abbott baskets may aptly be named the "trouserless pocket," in

which man or woman carries everything transportable. The principal point of interest, however, is the great variety of technical processes — including bastwork, barkwork, and spathework ; weaving, under many names ; coiling in great varieties ; besides lacing, plaiting, netting, knot-work, and joinerwork, in bewildering technic. These were all examined carefully and described in appropriate language, which may be used in a comparative study of the Abbott collection with others from neighboring areas. The paper was illustrated with examples of various kinds of work, as well as with photographs.

Meeting of March 19, 1907

At the 401st meeting 15 members were present. The death of Dr Albert S. Gatschet was announced.

MR GERARD FOWKE, on the invitation of the President, presented an account of his field work in Missouri for the Archæological Institute of America, and described a new type of burial and a new character of mound discovered by him.

DR J. B. NICHOLS read a paper on *Numerical Proportions of the Sexes at Birth*. (This paper has been published as Part 4, Volume I, of the *Memoirs of American Anthropological Association*, February, 1907.)

DR DANIEL FOLKMAR, who was formerly lieutenant-governor of Bontoc, read a paper on *Social Institutions of the Head-Hunting Igorot*. Dr Folkmar's remarks applied particularly to the Tinglayan Igorot, of which tribe he has made a special study. The Tinglayan live farthest north of the Igorot tribes of Luzon and are considered more advanced in social organization and arts. The chief functionary of the Tinglayan is called "Old man who makes the law," who is feared and respected on account of his occult powers and who is back of the puppets appointed by the Government. His office seems to be self-assumed and his practice is by omens from the idau, or sacred bird, which is consulted on all occasions. The head hunt is started by the old man after consultation with the idau, and it is said that the *presidente* of a village about to engage in a hunt is always notified and joins the party. The hunters take coup on the body dead or alive and are by this act entitled to certain tattoo marks on the breast. Heads are taken in order to insure good harvests.

In discussing the paper, Dr Swanton said that the custom of coup and tattoo in taking a head is similar to the customs of certain American Indian tribes.

Meeting of April 2, 1907

The 402d meeting was held with President McGuire in the chair and 50 members and visitors present.

PROFESSOR EDGAR L. HEWETT addressed the society on *The Antiquities of Northern Mexico*, illustrating his remarks with numerous lantern slides. The ancient culture of western Chihuahua, eastern Sonora, and northern Sinaloa was sketched by Professor Hewett, who recently returned from explorations in Mexico for the Archæological Institute of America. Views were shown of the Casas Grandes group in Chihuahua, and of Casa Grande in Arizona, structures very similar in method of building ; of mounds of artificial origin and enigmatic purpose existing in the Casas Grandes valley ; of the trincheras of Sonora ; of caves containing great granaries of basketry plastered with clay ; and of cave houses which touch the historic period. Views of the Tarahumare Indians and their houses were also shown. Professor Hewett explained the trincheras, which consist of walls constructed across small valleys, the earth-filling back of them forming terraced fields. These works are of enormous extent along the Sierra Madre, and the speaker stated that they have done much to conserve the forests and prevent the excessive wearing and gashing of the country so common in Arizona.

Meeting of April 16, 1907

At the 403d meeting 25 members and visitors were present.

DR HRDLICKA exhibited an exceptionally low-browed skull from a mound in Illinois. DR I. M. CASANOWICZ presented some remarkable Jewish talismanic ornaments from the Benguiat collection. DR WALTER HOUGH brought before the Society a series illustrating the extraction of yucca fiber by the ancient Pueblos of New Mexico.

The paper of the evening was by DR E. COREY STARR on *Observations, Medical and General, on the Northern Navaho*. The region in which these Navaho live is the Chusca and Carrizo mountains of Arizona and New Mexico. The country is semi-arid and has the characteristic xerophytic flora. Navaho legends tell of a country in which they once lived and from which they were driven into a land of ice, thence migrated south again. They have a legend of an emergence from the underworld and say that men were created from white corn and women from yellow corn. At one time a great man-devouring eagle preyed upon them. Dr Starr says that the Navaho are good people, and moral according to their standards. They are inveterate gamblers, but this custom is descended from early times when they practised it as a means of exchange. Dr Starr's communication was replete with interesting information and was well illustrated with specimens of Navaho handiwork.

Meeting of April 30, 1907

The 404th regular meeting was held on the above date, with 22 members in attendance.

MR C. S. SLOAN, Geographer of the Census, read a paper entitled *The Southwestern Movement of the Center of the Negro Population, 1790-1900*. Mr Sloan stated that there are now about ten million negroes in the United States, and that their rate of increase is nearly that of the whites. The center of negro population in 1790 was in Dinwiddie county, Virginia, and it has gradually moved to its present position in eastern Alabama. The cause of this movement may be the filling in of Texas and Oklahoma by settlers, or that the negro is moving into a zone which is better adapted to his racial idiosyncrasies. It is found that he is gradually focusing within the Austro-Riparian biologic zone, which comprises the states in which cotton can be grown, namely, the South Atlantic and South Central states. The paper was excellently illustrated with maps.

DR D. S. LAMB presented a communication on *Morbidity and Mortality of the Negro*. The speaker said that the subject is important and world-wide, and, although much has been written respecting it, authors differ widely in their generalizations because they have treated as a unit the complex mixture classed as Negro. Mixtures necessarily create a difference in anatomy, physiology, etc., and the bulk of what is recorded is unscientific. There are a few diseases peculiar to the pure-breed negro — sleeping sickness, yaros, ainhum, and elephantiasis, — but while these were introduced in the United States, they died out at the close of the slave trade. Dr Lamb concluded that it will be impossible to determine whether the negro differs in morbidity and morality from the races with which he is in contact without taking into account the proportion of racial mixture.

Meeting of May 14, 1907

The 405th meeting was presided over by Mr J. D. McGuire, with 32 members and visitors in attendance.

MR AINSWORTH R. SPOFFORD presented a paper on *The Virginia Aborigines as Seen by the Early Colonists*. The information was derived exclusively from the contemporary sources of Hamar, Percy, Robert Johnson, Newport, Spelman, Capt. John Smith, and others, who, though they were not inured to modern critical and accurate methods, had the advantage of being eye witnesses. The aborigines are generally characterized by these writers as well-formed, tall and straight of stature, savage and free as nature, alien alike to the virtues and vices of civilization, and

at first gentle and kind to the whites, although crafty and seldom forgetting an injury. They were without culture and education, but endowed with no mean measure of natural intelligence. Their food was obtained from a fruitful country and from game of all kinds of the land and the water. Their clothing was made from the skins of animals, especially the bear, adorned with beads; the common people contented themselves with girdles made of grass. Their habitations consisted of structures made of logs, thatched with grass and matting. The houses consisted of a single room, with two doors and no windows. The villages commonly had no more than twenty dwellings. The larger area of the country was covered with forests; but the natives cleared patches of land for agricultural purposes by felling the large trees and burning the young ones.

Mr Spofford gave a detailed description of the methods of sowing, planting, and harvesting. The cultivation of tobacco occupied a considerable area. It was considered as a mysterious plant and never offered as a sacrifice. It was smoked by the natives in clay pipes. No chewing of tobacco is anywhere mentioned. More important than agriculture was the pursuit of game by land and water, which was carried on with great energy. The speaker described the ornaments, implements, and household utensils, the weapons, games, and musical instruments of the aborigines. Their medical system was a combination of superstition and herb therapeutics. Polygamy was in vogue; the wives were bought. The government was an absolute monarchy; punishment was severe and cruel. The religion was a kind of dualism consisting in the belief in a good god who created the world, and in a devil who caused all the evil and misfortune to punish men for their sins. Some writers, however, describe the natives as sun-worshippers. The sacrifice of two or three young children occurred by burning. Belief in immortality in the form of a kind of metempsychosis. The whites were at first zealous in converting the natives to Christianity, though with scant success. After the widespread massacre by the Indians in 1622, the motto of the whites was, extermination of the aborigines.

Discussing the paper, Mr Mooney said that the early explorers, by reason of their contempt for the natives, saw many things without understanding them. On the whole, he said, the whites were not behind the Indians in treachery and cruelty. The custom of calling a priest to the sick is also found in the Bible. Mr Mooney thinks that the number of Indians at the time of the discovery in the whole of Virginia was from seventeen to twenty thousand.

Meeting of May 28, 1907

The annual meeting was held May 28, 1907, with President McGuire in the chair.

The Treasurer's report showed that during the fiscal year ending December 31, 1906, the total receipts amounted to \$587.78, the total expenditures to \$398.22, leaving a balance of \$189.56.

Mr J. N. B. Hewitt presented an extract of a field report by Dr J. R. Swanton, bearing on the scattered remnants of the Indian tribes in Louisiana.

Obituary notices were presented as follows: (1) Dr Cyrus Thomas on Dr Ernst Förstemann,¹ of Germany, honorary member of the Society. (2) Professor W. H. Holmes on Señor Alfredo Chavero.² (3) Mr James Mooney on Dr Albert S. Gatschet.³ (4) Dr A. Hrdlicka on Professor Emil Schmidt.⁴

The election of officers for 1907-08 resulted as follows: *President*, Dr Ales Hrdlicka; *Vice-Presidents*: (*A*, Somatology) Dr D. S. Lamb; (*B*, Psychology) Dr J. Walter Fewkes; (*C*, Esthetology) Professor W. H. Holmes; (*D*, Technology) Dr Walter Hough; (*E*, Sociology) Mr James Mooney; (*F*, Philology) Mr J. N. B. Hewitt; (*G*, Sophiology) Miss Alice C. Fletcher; *General Secretary*, Dr Walter Hough; *Secretary to Board of Managers*, Dr J. R. Swanton; *Treasurer*, Mr George C. Maynard; *Curator*, Mrs Marianna P. Seaman; *Councilors*: J. Walter Fewkes, J. B. Nichols, James Mooney, J. N. B. Hewitt, J. R. Swanton, W. E. Safford, F. W. Hodge, I. M. Casanowicz, Sarah S. James, Paul Beckwith, and G. R. Stetson; *Committee on Communications*: W. H. Holmes, Alice C. Fletcher, James Mooney.

WALTER HOUGH,
General Secretary.

¹ See *American Anthropologist*, ix, 153, 1907.

² Ibid., viii, 701, 1906.

³ Ibid., ix, 561, 1907 (this issue).

⁴ Ibid., ix, 236, 1907.